

Course description

Course abbreviation:	KTE/PED	Page:	1 / 4
Course name:	Tools for El. Eng. Documentation		
Academic Year:	2018/2019	Printed:	27.05.2024 18:32

Department/Unit /	KTE / PED			Academic Year	2018/2019
Title	Tools for El. Eng. Documentation			Type of completion	Pre-Exam Credit
Long Title	Tools for electr.document.processing				
Accredited/Credits	Yes, 3 Cred.			Type of completion	
Number of hours	Lecture 1 [Hours/Week] Tutorial 2 [Hours/Week]				
Occ/max	Status A	Status B	Status C	Course credit prior to	NO
Summer semester	0 / -	0 / -	0 / -	Counted into average	NO
Winter semester	0 / -	18 / -	6 / -	Min. (B+C) students	10
Timetable	Yes			Repeated registration	NO
Language of instruction	Czech			Semester taught	Winter semester
Optional course	Yes			Internship duration	0
Evaluation scale	S N				
No. of hours of on-premise					
Auto acc. of credit	Yes in the case of a previous evaluation 4 nebo nic.				
Periodicity	K				
Substituted course	None				
Preclusive courses	N/A				
Prerequisite courses	N/A				
Informally recommended courses	N/A				
Courses depending on this Course	N/A				

Course objectives:

Familiarize with the creation of simple drawings in ProgeCAD and AutoCAD, more extensive using the possibilities offered by this applications. Understand the principles of graphic communications. Familiarize with the principles of computer graphics. Get acquainted with the basics of other graphics programs.

Requirements on student

Requirements for obtaining the credit:

- the student has to pass the control practical tests, or to pass the summary corrective credit test
- active work during the practicum

Content

The course provides students with a basic overview and potential uses of software for CAD systems (with focus on ProgeCAD, resp. AutoCAD), and generally drawing programs for vector graphics. Learning skills can benefit students in developing technical documentation and presentation graphics.

Topics overview:

Graphical communication, the importance of information, technical documentation in electrical engineering, traditional versus modern computerized form of documentation, computer support in engineering, hardware and software for CAD, CAD systems, vector and raster graphics, the ProgeCAD presentation, using commands, basic properties, and desktop settings. Drawing 2D and 3D objects. Possibility of working with objects, snapping objects. Objects editing a modifying, change properties of objects, layers. Dimensioning. Planes. 3D views. Drawing and model space. User coordinate systems, 3D operations. Rendering.

Fields of study

Guarantors and lecturers

- **Guarantors:** Ing. Lenka Šroubová, Ph.D. (100%)
- **Lecturer:** Ing. Petr Kropík, Ph.D. (100%), Ing. Lenka Šroubová, Ph.D. (100%)
- **Tutorial lecturer:** Ing. Petr Kropík, Ph.D. (100%), Ing. Lenka Šroubová, Ph.D. (100%)

Literature

- **Recommended:** Píša, Zdeněk. *AutoCAD 2000 : efektivně*. 1. vyd. Brno : CCB, 1999. ISBN 80-85825-38-4.
- **Recommended:** Poláček, Dušan. *Technické kreslení podle mezinárodních norem III. pravidla tvorby výkresů a schémat v elektrotechnice*. Ostrava : Montanex, 1995. ISBN 80-85780-28-3.

Time requirements

All forms of study

Activities	Time requirements for activity [h]
Contact hours	13
Preparation for comprehensive test (10-40)	26
Individual project (40)	13
Practical training (number of hours)	26
Total:	78

assessment methods

Knowledge - knowledge achieved by taking this course are verified by the following means:

- Test
- Self-evaluation
- Project

Skills - skills achieved by taking this course are verified by the following means:

- Test
- Skills demonstration during practicum
- Project

Competences - competence achieved by taking this course are verified by the following means:

- Test
- Skills demonstration during practicum

prerequisite

Knowledge - students are expected to possess the following knowledge before the course commences to finish it successfully:

- to have basic knowledges in geometry for grammar schools
- to have basic knowledges in mathematics for grammar schools

Skills - students are expected to possess the following skills before the course commences to finish it successfully:

- to control commonly available information and communication technique
- to have basic skills in geometry for grammar schools

Competences - students are expected to possess the following competences before the course commences to finish it successfully:

N/A

N/A

N/A

N/A

teaching methods**Knowledge - the following training methods are used to achieve the required knowledge:**

Lecture supplemented with a discussion

Practicum

Multimedia supported teaching

Skills - the following training methods are used to achieve the required skills:

Laboratory work

Skills demonstration

Individual study

Multimedia supported teaching

Lecture supplemented with a discussion

Competences - the following training methods are used to achieve the required competences:

Lecture

Practicum

Multimedia supported teaching

learning outcomes**Knowledge - knowledge resulting from the course:**

to determine the appropriate use of vector or raster graphics

Skills - skills resulting from the course:

to use suitable means and resources for technical documentation

create a drawing as required

to apply the possibilities of CAD systems in engineering work

to apply computer support in engineering work

Competences - competences resulting from the course:

N/A

N/A

Course is included in study programmes:

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Certifikátové programy	Undergraduate Master	Full-time	Modelování v elektrotechnice	1	16	2018	Povinně volitelné předměty certifikátu Modelování v elektrotechnice	B		ZS
Electrical Engineering and Informatics	Bachelor	Full-time	Commercial Electrical Engineering	1	16	2018	blok KOE2	B	3	ZS
Applied electrical engineering	Bachelor	Full-time	Applied electrical engineering	1	16	2018	Doporučené výběrové předměty AEL	C		ZS
Applied Electrical Engineering	Postgraduate Master	Full-time	Applied Electrical Engineering	1	12	2018	Výběrové předměty 2.ročníku oboru AE	C		ZS

Study Programme	Type of	Form of	Branch	Stage	St. plan	v.	Year	Block	Status	R.year	R.
Applied Electrical Engineering	Postgraduate Master	Combined	Applied Electrical Engineering	1	16		2018	Výběrové předměty 2.ročníku oboru AEk	C		ZS
Electrical Engineering and Informatics	Bachelor	Full-time	Electrical Engineering	1	16		2018	Doporučené výběrové předměty ELT	C		ZS
Electrical Engineering and Informatics	Bachelor	Full-time	Environmental Engineering	1	16		2018	Doporučené výběrové předměty TEK	C		ZS